Unit 1 - Worksheet 3:

Practice with System Schemas & Energy Pie Charts

*Use Energy Pie Charts to analyze the energy changes in each situation shown below.*

*Note: Please draw an Energy Pie Chart* ***and*** *a State Diagram* ***for each bunny*** *shown!*

• Designate your choice of system with a dotted line. *Choose your system so that any energy transfers involved are within the system.*

• Carefully label the pies to correspond with the positions of the objects given. (A, B, C, etc. Label the bunnies and label the energy pies.)

• The pies should be accurately divided and labeled with the energy storage modes involved.

• Remember the following energy questions in deciding about the energy changes:

1. What is the system?
2. How is the energy stored at each point during the event?
3. Is energy transferred in or out of the system? If so revisit your system choice so that all energy remains within the system.
4. A wind-up toy is fully wound and at rest.

1. The toy is wound up and is moving at a constant speed up an incline.
2. The toy is wound up and moving along at a constant speed.

4. The toy is wound up and speeding up as it moves up an incline.